

REMARKS

Claims 1, 7, 13, 15, 18, 19, 24, and 29 have been amended and claim 12 has been canceled. No claims have been added and no new matter has been introduced. Upon entry of the above amendments, claims 1, 2, 4-7, 9-11, 13-15, 17-24, 26-29, and 31 will remain in the application.

The specification stands objected to for allegedly failing to include headings. This objection is traversed in view of the section headings added by the Preliminary Amendment filed September 23, 2005. Withdrawal of the objection to the specification is solicited.

The drawings stand objected to under 37 C.F.R. 1.83(a) as allegedly not showing every feature specified in the claims. This objection is respectfully traversed. Drawing changes are unnecessary since the claimed features are illustrated as appropriate.

The Examiner alleges that the following features are not shown in the drawings. Citation to the corresponding element in the specification and figures is provided.

“Means for comparing the output voltage with a predetermined voltage and generating a comparison signal”: Figure 1: comparator circuit 4 compares the voltage as measured by the output voltage sensor 3 with a predetermined voltage value and a thyristor control means 5 provides signals to the thyristors in dependence on signals received from the output voltage sensor 3 and comparator circuit 4. (See specification, page 6, lines 12-21.)

“Means for delaying”: Figure 1: bypass switches S1, S2, S3 are controlled to bypass switches THY1, THY2, THY3 to vary the time a voltage is delivered by delaying the onset of each rise in voltage for each half-cycle. (See specification, page 6, lines 2-8)

“Means for reducing the amplitude”: Claim 7 has been amended to specify that the adjusting means reduces the amplitude. (See Figure 1: THY1, THY2, THY3 reduce the waveform amplitude; specification, page 6, lines 28-35.)

“Variable AC transformer”: This is an alternate embodiment described in the specification from page 7, line 34, through page 8, line 1. Applicant submits that illustration in a figure is not necessary.

“Means for varying the predetermined voltage”: Claim 12 has been canceled.

“Single phase supply voltage”: This is an alternate embodiment described in the specification from page 8, line 35, through page 9, line 3. Applicant submits that illustration in a figure is not necessary.

In view of the above, Applicant submits that no correction to the figures is necessary. Withdrawal of the drawing objection is solicited.

Claims 1, 2, 4-7, 9-15 and 17 stand objected to for alleged insufficient antecedent basis for “means” on line 9 of claim 1. Claim 1 has been amended to recite “adjusting means” to provide clear antecedent basis. Withdrawal of this objection is solicited.

Claims 1, 2, 4-6, 12-19, 21-24, 26, and 28-30 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by DeLange (US 5,187,419). Also, claims 10 and 27 stand rejected under 35 U.S.C. §103(a) as allegedly being obvious over DeLange in view of Bertenshaw (US 5,237,244) and claim 11 stands rejected under 35 U.S.C. §103(a) as allegedly being obvious over DeLange in view of Koyama et al. (US 6,028,471). These rejections are respectfully traversed.

Independent claims 1 and 18, as amended, recite a voltage control method and apparatus that adjusts the output signal so as to increase or decrease the output signal in response to a comparison signal. In particular, claim 1, by way of example, recites:

means for adjusting the output voltage to increase or decrease the output voltage in response to the comparison signal, said adjusting means being connected to the input and the output;

whereby the output voltage is maintained substantially at the predetermined voltage unless the variable alternating supply voltage falls below the predetermined voltage.

Such characteristic features of a voltage control method and apparatus are not taught by the cited prior art.


DeLange is concerned with controlling the speed of an electric motor during dynamic braking. For this purpose, comparator means 24-26 are arranged to detect if the voltage at the outputs 41-43 is positive or negative. However, DeLange do not provide for the voltage at the outputs to be compared with a predetermined voltage and for the voltage at the outputs to be adjusted to increase or decrease the output voltage as claimed. Accordingly, withdrawal of the rejections of independent claims 1 and 18 and all claims dependent thereon is respectfully solicited.

Bertenshaw et al. is cited for the teaching of an AC transformer for reducing the amplitude of an output voltage, and Koyama et al. is cited for the teaching of a bypass switch. Neither of these references provides teachings of comparing the voltage at the outputs with a predetermined voltage and for the voltage at the outputs to be adjusted to increase or decrease the output voltage as claimed. Accordingly, even if the teachings of Bertenshaw et al. and/or Koyama et al. could have been combined with the teachings of DeLange as the Examiner proposes, the claimed invention would not have resulted. Withdrawal of all prior art rejections is thus appropriate and is respectfully solicited.

Conclusion

For the reasons recited herein, all pending claims are now believed to be in condition for allowance. A Notice of Allowability is respectfully solicited.

Date: March 30, 2007



Michael P. Dunnam
Registration No. 32,611

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439